

# Morbidity and Mortality

Weekly  
Report

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE

Prepared by the

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PROVISIONAL INFORMATION ON SELECTED NOTIFIABLE DISEASES IN THE UNITED STATES AND ON  
DEATHS IN SELECTED CITIES FOR WEEK ENDED DECEMBER 12, 1964

SPECIAL REPORT - Meningococcal Meningitis

## EPIDEMIOLOGIC NOTES

### Rabies

Only one case of human rabies has been reported thus far this year (see MMWR, Vol. 13, No. 38), as in 1963. The figure opposite shows the incidence of human rabies since 1938. The decline in cases has paralleled the decline in animal rabies cases which began in 1946 and continued until 1960.

Since 1960, there has been a slight upward trend in reported cases of animal rabies. This trend, due to an increased incidence of rabies in wild animals, has accelerated during 1964. There are 4,353 cases of animal rabies reported thus far this year as compared to 3,608 cases for the similar period of 1963; a 21 percent increase. The increased number of animal rabies cases is largely accounted for by an increased incidence of skunk rabies in the midwest and fox rabies in Virginia and Tennessee.



Table 1. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

Disease	50th Week Ended		Median 1959 - 1963	Cumulative, First 50 Weeks		
	December 12, 1964	December 14, 1963		1964	1963	Median 1959 - 1963
Aseptic meningitis .....	35	30	---	2,075	1,771	---
Brucellosis .....	3	4	9	383	347	562
Diphtheria .....	3	20	20	278	282	564
Encephalitis, primary infectious ..	47	29	---	3,112	1,495	---
Encephalitis, post-infectious .....	3		---	763		---
Hepatitis, infectious including serum hepatitis .....	722	857	945	36,367	41,385	41,385
Measles .....	3,249	3,440	4,283	454,334	380,794	413,519
Meningococcal infections .....	58	45	45	2,615	2,253	2,116
Poliomyelitis, Total .....	-	6	22	117	429	1,321
Paralytic .....	-	4	13	90	366	859
Nonparalytic .....	-	2	---	15	46	---
Unspecified .....	-	-	---	12	17	---
Streptococcal Sore Throat and Scarlet fever .....	8,887	8,404	---	377,357	325,667	---
Tetanus .....	5	4	---	266	270	---
Tularemia .....	3	5	---	312	277	---
Typhoid fever .....	8	5	10	433	520	786
Rabies in Animals .....	120	51	51	4,353	3,608	3,470

Table 2. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	5	Psittacosis: Ariz. - 1	45
Botulism:	15	Rabies in Man:	1
Leptospirosis:	102	Smallpox:	-
Malaria: Calif. - 1	94	Typhus-	
Plague:	-	Murine:	23
		Rky Mt. Spotted: N. C. - 2	222

## SPECIAL REPORT — Meningococcal Meningitis

## MENINGOCOCCAL MENINGITIS

In the United States, the national incidence of meningococcal meningitis has shown but a slight increase (figure 1). Through the 50th week of this year, 2,615 cases were reported compared to 2,253 cases for the comparable period last year.

During the past 18 months, meningococcal infections have assumed a special significance because of outbreaks among military recruits, caused primarily by Group B strains which are resistant to the usual prophylactic and therapeutic doses of sulfonamide drugs. The resulting lack of an effective chemoprophylactic agent is of concern to both military and civilian health officers. Since 1963, when significant numbers of sulfonamide-resistant meningococcal infections were first recognized at the San Diego Naval Training Center, the problem has been under intensive study. During recent months, a similar problem has been recognized among military recruits stationed at Fort Ord, California. On the advice of the Surgeon General of the Army, the assignment of new basic trainees to Fort Ord as of October 11, 1964 was discontinued and all basic training at that facility during the month of December was stopped.

The occurrence of meningococcal infections in California and at Fort Ord during the past 5 years is summarized in Table 1. A progressive increase in the number of cases per year is evident both in California and at Fort Ord. The increasing number of cases at Fort Ord, however, has not been paralleled by an increasing number of cases in Monterey County. Most striking is the fact that in 1964 through mid-November, Monterey County reported only one case of meningococcal meningitis exclusive of cases from Fort Ord.

Table 1  
MENINGOCOCCAL INFECTIONS IN CALIFORNIA, 1960-64 (THROUGH NOVEMBER 14)

Year	California	Monterey County Exclusive of Fort Ord	Fort Ord					
			Trainees		Dependents		Total	
			Cases	Deaths	Cases	Deaths	Cases	Deaths
1960	209	3	3	1	2	1	5	2
1961	236	10	5	0	7	1	12	1
1962	334	7	36	0	3	0	39	0
1963	388	16	53	5	5	0	58	5
1964*	473	1	84**	11	7	1	91	12

\* Through November 14.

\*\* Six additional cases of meningitis, 3 of which were fatal, occurred among trainees within 2 weeks following completion of basic training at Fort Ord. Four other localized meningococcal infections occurred among trainees (urthritis, conjunctivitis, and maxillary sinusitis).

The month of onset of the 101 meningococcal infections and the deaths among Fort Ord personnel and their dependents in 1964 are shown in Figure 2. Not included in this total are 3 additional cases of meningitis, including one death, that occurred away from Fort Ord in October, one in a dependent, and two in non-dependent civilians. All had contact with a Fort Ord trainee several days prior to the onset of disease.

It is apparent that a substantial reduction in the number of cases per month occurred in September and

Figure 1.

MENINGOCOCCAL INFECTIONS  
REPORTED BY YEAR  
UNITED STATES, 1920-1964\*

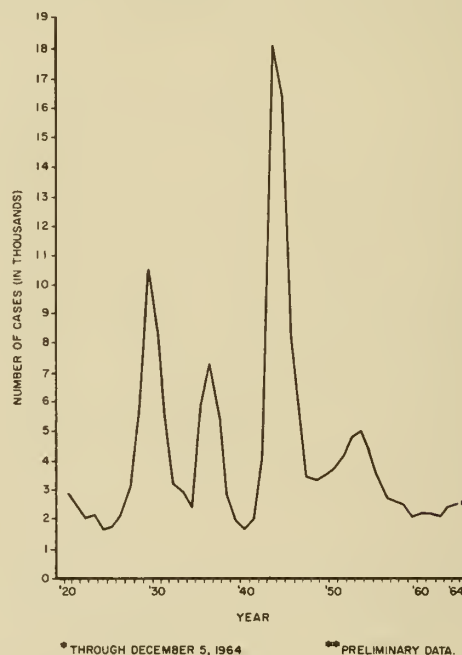
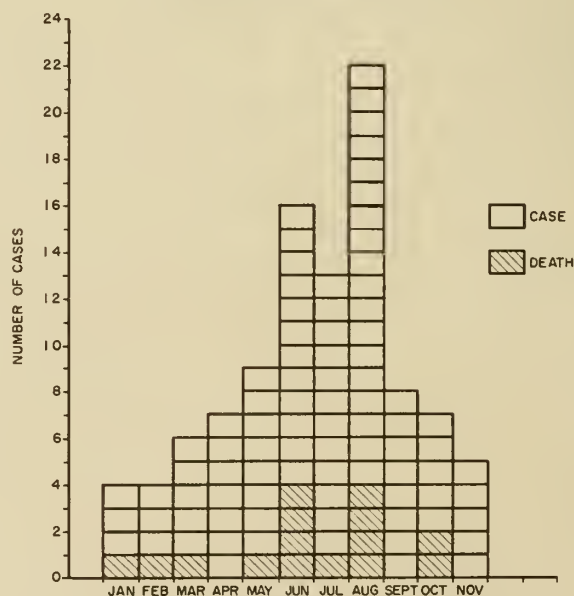


Figure 2.

MENINGOCOCCAL INFECTIONS AND DEATHS  
BY MONTH OF ONSET  
FORT ORD, CALIFORNIA-1964\*



October following the August peak. This coincided with the introduction of a number of prophylactic measures to be described.

The disease among military personnel has been one of recruits, occurring almost solely during the 8 weeks of basic combat training, or shortly thereafter. (Figure 3) During the past several months there has been a tendency for the disease to occur during the last 4 weeks of basic combat training or within one week after its completion, rather than during the first 4 weeks, as was formerly the case. An explanation for this change has not been apparent.

Rates of nasopharyngeal carriage have been monitored regularly. Recent results indicate that the meningococcal carrier rate among inductees arriving at Fort Ord ranges from 15 to 25 percent. By the seventh week of training, this rate may reach as high as 80 percent. The cumulative carrier rate by the end of basic combat training approaches 100 percent. Most of the strains from both cases and carriers have been Group B; Group C strains have accounted for approximately 10 percent of the isolates.

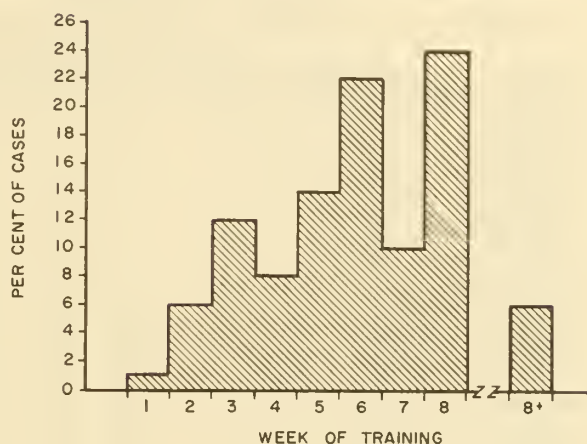
The outstanding characteristic of the meningococci recently prevalent is sulfonamide resistance. With recognition at Fort Ord in 1963 that sulfonamide-resistant strains were present and that prophylaxis failed to reduce carrier rates, prophylaxis with sulfonamides was terminated in May, 1963. During the latter part of 1963, up to 90 percent of all strains isolated were resistant; thus far, in 1964, the proportion of resistant strains has generally been somewhat lower although varying widely from 10 to 80 percent. Approximately half of the cases have been caused by resistant organisms. Almost all sulfonamide-resistant strains have been Group B, although a few resistant Group C strains have been identified.

Since no effective chemoprophylactic agent was available, older but nonetheless useful procedures designed to reduce the degree of contact among recruits and to decrease their susceptibility to the disease assumed primary importance. Several such measures were put into effect during August and September. These included: (1) reduction of the recruit input at Fort Ord from 1100 men per week to 800 men per week; (2) institution of a platoon system to further restrict contact between men, not only to their own company, but to a single platoon; (3) cancellation of all leaves during the 8-week training period and prior to being transferred to their next duty station; (4) complete restriction of recruits to their company area; (5) the provision of additional barracks space to provide a minimum of 72 square feet of space per recruit; and (6) the provision of a minimum of a one-week free period for cadre personnel between recruit groups. The reduction in cases during September and October followed institution of these measures. The temporary discontinuation of recruit training, however, precludes a full evaluation of the effect of these measures.

Cases at Fort Ord have been satisfactorily treated with penicillin G in high doses (1,000,000 units or more

Figure 3.

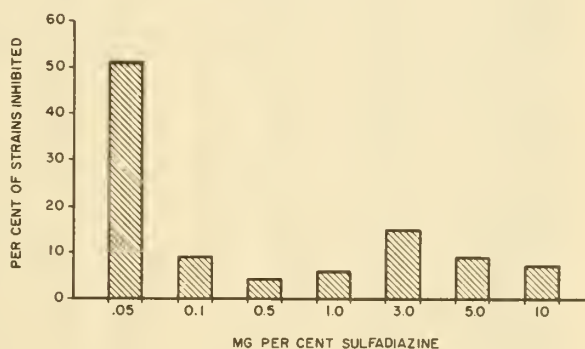
MENTINGOCOCCAL MENINGITIS  
AMONG FORT ORD TRAINEES  
BY WEEK OF BASIC COMBAT TRAINING  
1964\*



\* THROUGH OCTOBER 31.

Figure 4.

MINIMUM INHIBITING CONCENTRATION  
OF SULFADIAZINE  
FOR 210 ISOLATES OF MENINGOCOCCI\*  
1963-1964



\* FROM BLOOD OR CEREBROSPINAL FLUID SPECIMENS  
SUBMITTED TO THE COMMUNICABLE DISEASE CENTER.

every 2 hours parenterally), with or without the addition of a sulfonamide drug. There has been no evidence to suggest that sulfonamide-resistant strains are any more or less virulent than the sensitive strains, nor has there been evidence suggesting that any of the deaths were due to antibiotic failure.

The occurrence of outbreaks of meningococcal meningitis due to Group B strains is in sharp contrast to previous experience. Group A strains have been responsible for most epidemics in the past, and Group C strains have been occasionally associated with outbreaks.

(Continue to page 444)



## Morbidity and Mortality Weekly Report

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
DECEMBER 12, 1964 AND DECEMBER 14, 1963 (50TH WEEK)

Area	Aseptic Meningitis		Encephalitis		Poliomyelitis, Total Cases				Poliomyelitis, Paralytic			
			Primary	Post-Inf.	1964	1963	Cumulative		1964	1963	Cumulative	
	1964	1963					1964	1963			1964	1963
UNITED STATES...	35	30	47	3	-	6	117	429	-	4	90	366
NEW ENGLAND.....	1	1	-	-	-	-	2	9	-	-	2	9
Maine.....	-	-	-	-	-	-	-	3	-	-	-	3
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	1	-	-	-	1
Massachusetts.....	-	-	-	-	-	-	-	3	-	-	-	3
Rhode Island.....	1	1	-	-	-	-	-	-	-	-	-	-
Connecticut.....	-	-	-	-	-	-	2	2	-	-	2	2
MIDDLE ATLANTIC.....	6	2	14	1	-	-	15	122	-	-	13	98
New York City.....	1	-	2	-	-	-	2	1	-	-	2	-
New York, Up-State.....	2	2	1	-	-	-	10	10	-	-	9	7
New Jersey.....	3	-	9	-	-	-	3	4	-	-	2	3
Pennsylvania.....	-	-	2	1	-	-	-	107	-	-	-	88
EAST NORTH CENTRAL...	2	5	4	-	-	-	24	58	-	-	16	47
Ohio.....	-	2	-	-	-	-	3	8	-	-	2	4
Indiana.....	-	-	3	-	-	-	9	4	-	-	6	3
Illinois.....	1	2	-	-	-	-	6	17	-	-	5	16
Michigan.....	1	1	1	-	-	-	3	20	-	-	2	20
Wisconsin.....	-	-	-	-	-	-	3	9	-	-	1	4
WEST NORTH CENTRAL...	3	1	1	-	-	1	10	8	-	-	8	6
Minnesota.....	-	1	-	-	-	-	3	4	-	-	2	4
Iowa.....	-	-	-	-	-	-	1	-	-	-	1	-
Missouri.....	-	-	1	-	-	1	4	1	-	-	3	-
North Dakota.....	-	-	-	-	-	-	1	1	-	-	1	-
South Dakota.....	-	-	-	-	-	-	-	1	-	-	-	1
Nebraska.....	-	-	-	-	-	-	-	1	-	-	-	1
Kansas.....	3	-	-	-	-	-	1	-	-	-	1	-
SOUTH ATLANTIC.....	1	1	2	-	-	3	35	102	-	3	28	88
Delaware.....	-	-	-	-	-	-	-	1	-	-	-	1
Maryland.....	-	-	-	-	-	-	1	1	-	-	1	1
Dist. of Columbia..	-	-	-	-	-	-	-	1	-	-	-	-
Virginia.....	1	-	2	-	-	-	4	21	-	-	4	16
West Virginia.....	-	-	-	-	-	1	1	4	-	1	1	4
North Carolina.....	-	-	-	-	-	-	12	5	-	-	7	4
South Carolina.....	-	-	-	-	-	-	3	8	-	-	3	7
Georgia.....	-	-	-	-	-	1	3	22	-	1	3	21
Florida.....	-	1	-	-	-	1	11	39	-	1	9	34
EAST SOUTH CENTRAL...	2	1	1	-	-	-	6	73	-	-	5	67
Kentucky.....	1	1	-	-	-	-	-	-	-	-	-	-
Tennessee.....	-	-	-	-	-	-	3	11	-	-	2	10
Alabama.....	-	-	-	-	-	-	2	53	-	-	2	48
Mississippi.....	1	-	1	-	-	-	1	9	-	-	1	9
WEST SOUTH CENTRAL...	4	2	1	1	-	-	12	27	-	-	10	26
Arkansas.....	1	-	-	1	-	-	-	4	-	-	-	3
Louisiana.....	-	-	1	-	-	-	-	14	-	-	-	14
Oklahoma.....	-	2	-	-	-	-	3	1	-	-	2	1
Texas.....	3	-	-	-	-	-	9	8	-	-	8	8
MOUNTAIN.....	3	4	20	-	-	2	10	8	-	1	5	6
Montana.....	-	-	-	-	-	-	1	-	-	-	1	-
Idaho.....	-	-	-	-	-	-	1	1	-	-	1	1
Wyoming.....	-	-	-	-	-	-	2	-	-	-	2	-
Colorado.....	3	4	19	-	-	1	1	2	-	-	1	1
New Mexico.....	-	-	-	-	-	-	5	1	-	-	-	-
Arizona.....	-	-	-	-	-	-	-	3	-	-	-	3
Utah.....	-	-	1	-	-	-	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	1	-	1	-	1	-	1
PACIFIC.....	13	13	4	1	-	-	3	22	-	-	3	19
Washington.....	-	1	-	-	-	-	-	2	-	-	-	2
Oregon.....	-	-	-	-	-	-	1	2	-	-	1	1
California.....	10	11	4	1	-	-	2	18	-	-	2	16
Alaska.....	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii.....	3	1	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	-	-	-	-	-	5	-	-	-	4

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
DECEMBER 12, 1964 AND DECEMBER 14, 1963 (50TH WEEK) - CONTINUED

Area	Brucellosis		Diphtheria		Infectious Hepatitis including Serum Hepatitis						Typhoid Fever	
	1964	Cum.	1964	Cum.	Total	Under 20 years	20 years and over	Age Unknown	Cumulative		1964	Cum.
		1964		1964	1964	1964	1964	1964	1964	1963		1964
UNITED STATES...	3	383	3	278	722	346	321	55	36,367	41,385	8	433
NEW ENGLAND.....	-	2	-	44	44	19	24	1	3,226	4,781	-	17
Maine.....	-	-	-	39	12	8	3	1	996	2,169	-	-
New Hampshire.....	-	-	-	-	4	-	4	-	256	589	-	-
Vermont.....	-	-	-	-	5	4	1	-	375	143	-	-
Massachusetts.....	-	2	-	5	9	4	5	-	741	1,174	-	8
Rhode Island.....	-	-	-	-	7	-	7	-	217	115	-	6
Connecticut.....	-	-	-	-	7	3	4	-	641	591	-	3
MIDDLE ATLANTIC.....	-	8	-	10	133	61	72	-	7,912	8,233	-	68
New York City.....	-	-	-	5	25	11	14	-	1,261	1,293	-	34
New York, Up-State.....	-	4	-	-	49	23	26	-	3,419	3,558	-	15
New Jersey.....	-	-	-	2	16	3	13	-	1,295	1,200	-	2
Pennsylvania.....	-	4	-	3	43	24	19	-	1,937	2,182	-	17
EAST NORTH CENTRAL...	-	50	-	11	126	61	61	4	5,853	6,606	2	84
Ohio.....	-	5	-	-	24	13	11	-	1,532	1,810	1	22
Indiana.....	-	1	-	1	9	6	3	-	486	608	-	22
Illinois.....	-	29	-	9	29	9	20	-	1,118	1,360	-	23
Michigan.....	-	6	-	1	59	32	27	-	2,316	2,530	-	11
Wisconsin.....	-	9	-	-	5	1	-	4	401	298	1	6
WEST NORTH CENTRAL...	1	165	-	36	43	27	13	3	1,996	1,848	1	32
Minnesota.....	-	9	-	18	5	1	2	2	226	283	-	3
Iowa.....	1	104	-	-	14	10	4	-	359	328	-	4
Missouri.....	-	10	-	1	9	5	4	-	496	602	1	15
North Dakota.....	-	2	-	2	1	-	1	-	64	102	-	2
South Dakota.....	-	21	-	3	1	-	-	1	135	141	-	1
Nebraska.....	-	13	-	5	5	3	2	-	74	125	-	3
Kansas.....	-	6	-	7	8	8	-	-	642	267	-	4
SOUTH ATLANTIC.....	1	40	-	76	80	40	33	7	3,377	4,156	3	98
Delaware.....	-	-	-	-	2	1	1	-	76	80	-	-
Maryland.....	-	-	-	1	20	11	9	-	620	524	-	8
Dist. of Columbia..	-	-	-	-	-	-	-	-	69	108	-	-
Virginia.....	-	17	-	-	18	6	5	7	543	814	-	11
West Virginia.....	1	1	-	15	13	2	2	-	482	648	-	-
North Carolina.....	-	4	-	1	10	6	4	-	546	1,057	-	20
South Carolina.....	-	-	-	7	1	1	-	-	152	166	-	12
Georgia.....	-	14	-	32	6	2	4	-	112	171	1	28
Florida.....	-	4	-	35	8	-	8	-	777	588	2	19
EAST SOUTH CENTRAL...	-	18	-	30	45	31	11	3	2,466	3,725	-	43
Kentucky.....	-	6	-	-	15	11	1	3	865	1,125	-	10
Tennessee.....	-	5	-	2	13	7	6	-	873	1,422	-	19
Alabama.....	-	4	-	23	5	5	-	-	479	592	-	8
Mississippi.....	-	3	-	5	12	8	4	-	249	586	-	6
WEST SOUTH CENTRAL...	-	46	2	41	56	30	23	3	2,860	2,812	-	41
Arkansas.....	-	6	-	3	3	1	2	-	289	306	-	15
Louisiana.....	-	4	-	12	8	7	1	-	675	577	-	6
Oklahoma.....	-	9	-	1	-	-	-	-	132	122	-	9
Texas.....	-	27	2	25	45	22	20	3	1,764	1,807	-	11
MOUNTAIN.....	-	30	-	2	59	19	7	33	2,238	2,616	1	13
Montana.....	-	-	-	-	5	3	-	2	190	331	-	-
Idaho.....	-	-	-	-	9	-	-	9	316	440	-	-
Wyoming.....	-	-	-	-	2	-	2	-	93	43	-	1
Colorado.....	-	-	-	-	15	5	2	8	588	533	-	-
New Mexico.....	-	1	-	1	12	9	3	-	324	329	1	5
Arizona.....	-	2	-	1	12	-	-	12	487	593	-	7
Utah.....	-	26	-	-	4	2	-	2	189	328	-	-
Nevada.....	-	1	-	-	-	-	-	-	51	19	-	-
PACIFIC.....	1	24	1	28	136	58	77	1	6,439	6,608	1	37
Washington.....	-	-	-	13	7	3	3	1	647	1,076	-	2
Oregon.....	-	2	-	-	4	-	4	-	644	770	-	-
California.....	1	22	1	15	107	46	61	-	4,736	4,513	1	35
Alaska.....	-	-	-	-	12	9	3	-	290	206	-	-
Hawaii.....	-	-	-	-	6	-	6	-	122	43	-	-
Puerto Rico	-	-	-	13	13	8	5	-	954	857	-	13

## Morbidity and Mortality Weekly Report

Table 3. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
DECEMBER 12, 1964 AND DECEMBER 14, 1963 (50TH WEEK) - CONTINUED

Area	Measles	Meningococcal Meningitis		Streptococcal Sore Throat and Scarlet Fever		Tetanus		Tularemia		Rabies in Animals		
		1964	Cumulative		1964	1963	1964	Cum. 1964	1964	Cum. 1964	1964	Cum. 1964
			1964	1963								
UNITED STATES...	3,249	58	2,615	2,253	8,887	8,404	5	266	3	312	120	4,353
NEW ENGLAND.....	901	2	91	131	907	572	-	9	-	1	1	36
Maine.....	151	-	7	19	65	80	-	-	-	-	-	28
New Hampshire.....	49	-	2	4	6	-	-	-	-	-	-	2
Vermont.....	34	-	4	6	1	17	-	-	-	-	1	5
Massachusetts.....	247	1	38	59	351	92	-	9	-	1	-	1
Rhode Island.....	79	-	11	12	30	34	-	-	-	-	-	-
Connecticut.....	341	1	29	31	454	349	-	-	-	-	-	-
MIDDLE ATLANTIC.....	203	6	343	320	350	323	1	23	-	1	6	123
New York City.....	21	2	48	49	13	30	-	-	-	-	-	-
New York, Up-State..	64	1	103	102	287	175	1	9	-	-	6	115
New Jersey.....	23	1	107	50	-	61	-	6	-	-	-	-
Pennsylvania.....	95	2	85	119	50	57	-	8	-	1	-	8
EAST NORTH CENTRAL...	435	8	354	351	797	811	-	51	-	24	19	597
Ohio.....	76	2	93	99	73	100	-	14	-	2	17	307
Indiana.....	23	1	55	46	147	93	-	15	-	2	1	31
Illinois.....	14	4	96	72	97	104	-	14	-	14	-	114
Michigan.....	199	1	78	99	367	341	-	7	-	2	-	57
Wisconsin.....	123	-	32	35	113	173	-	1	-	4	1	88
WEST NORTH CENTRAL...	182	5	150	138	412	262	1	18	-	59	22	1,293
Minnesota.....	1	1	33	28	6	24	1	5	-	2	8	413
Iowa.....	54	-	9	7	115	65	-	6	-	1	2	452
Missouri.....	20	3	68	41	4	48	-	4	-	32	4	190
North Dakota.....	95	-	20	16	178	105	-	-	-	-	5	71
South Dakota.....	1	-	3	7	18	10	-	1	-	15	2	94
Nebraska.....	11	-	7	25	-	-	-	-	-	-	1	36
Kansas.....	NN	1	10	14	91	10	-	2	-	9	-	37
SOUTH ATLANTIC.....	254	16	525	413	832	727	2	65	-	31	13	590
Delaware.....	3	-	7	4	21	2	-	-	-	-	-	-
Maryland.....	-	-	41	58	54	17	-	4	-	-	-	3
Dist. of Columbia..	-	-	17	8	3	5	-	1	-	1	-	-
Virginia.....	32	1	64	88	193	368	-	8	-	7	8	317
West Virginia.....	150	-	35	23	249	200	-	1	-	-	2	38
North Carolina.....	4	8	95	80	16	34	1	16	-	7	-	5
South Carolina.....	6	2	59	24	64	39	-	5	-	-	-	2
Georgia.....	1	5	87	34	34	12	1	5	-	15	-	119
Florida.....	58	-	120	94	198	50	-	25	-	1	3	106
EAST SOUTH CENTRAL...	240	2	195	152	1,529	1,745	-	35	1	33	33	637
Kentucky.....	65	-	64	34	149	264	-	8	-	4	1	63
Tennessee.....	153	2	62	70	1,192	1,338	-	14	1	21	32	491
Alabama.....	12	-	43	25	89	13	-	8	-	3	-	20
Mississippi.....	10	-	26	23	99	130	-	5	-	5	-	63
WEST SOUTH CENTRAL...	233	5	242	203	881	908	1	30	1	107	14	619
Arkansas.....	4	-	33	14	1	1	-	8	1	66	2	147
Louisiana.....	-	-	129	81	2	6	-	4	-	6	3	76
Oklahoma.....	9	-	15	35	12	40	-	1	-	20	3	97
Texas.....	220	5	65	73	866	861	1	17	-	15	6	299
MOUNTAIN.....	423	1	97	80	1,485	2,032	-	6	1	53	2	143
Montana.....	110	-	1	3	65	78	-	-	-	19	-	1
Idaho.....	56	-	4	6	79	90	-	1	-	-	-	-
Wyoming.....	1	-	5	7	58	279	-	2	1	11	-	-
Colorado.....	16	-	22	21	633	633	-	-	-	-	-	8
New Mexico.....	147	-	39	5	247	517	-	1	-	-	-	52
Arizona.....	9	-	8	13	125	187	-	1	-	-	2	68
Utah.....	80	-	7	20	277	247	-	1	-	23	-	3
Nevada.....	4	1	11	5	1	1	-	-	-	-	-	11
PACIFIC.....	378	13	618	465	1,694	1,024	-	29	-	3	10	315
Washington.....	162	-	48	40	332	160	-	3	-	-	-	-
Oregon.....	26	2	27	34	35	30	-	1	-	1	-	11
California.....	159	11	523	362	1,135	742	-	23	-	2	10	304
Alaska.....	6	-	7	15	31	53	-	-	-	-	-	-
Hawaii.....	25	-	13	14	161	39	-	2	-	-	-	-
Puerto Rico	54	-	34	10	7	10	1	65	-	-	1	27

Table 4 (B). REPORTED PNEUMONIA-INFLUENZA DEATHS IN REPORTING CITIES

(Tables 4(A), 4(B), 4(C), and 4(D) will be published in sequence covering a four-week period.)<sup>o</sup>

Area	For weeks ending				Area	For weeks ending			
	11/21	11/28	12/5	12/12		11/21	11/28	12/5	12/12
<b>NEW ENGLAND:</b>					<b>SOUTH ATLANTIC:</b>				
Boston, Mass.....	12	4	8	13	Atlanta, Ga.....	5	5	2	11
Bridgeport, Conn.....	2	4	4	6	Baltimore, Md.....	11	9	6	5
Cambridge, Mass.....	1	-	-	-	Charlotte, N.C.....	1	3	2	-
Fall River, Mass.....	-	2	2	-	Jacksonville, Fla.....	2	-	1	2
Hartford, Conn.....	-	-	-	-	Miami, Fla.....	-	-	-	-
Lowell, Mass.....	-	3	3	2	Norfolk, Va.....	6	1	6	7
Lynn, Mass.....	3	2	1	4	Richmond, Va.....	2	2	1	1
New Bedford, Mass.....	1	3	1	1	Savannah, Ga.....	4	1	3	2
New Haven, Conn.....	-	1	1	-	St. Petersburg, Fla.....	10	3	3	9
Providence, R.I.....	1	6	6	-	Tampa, Fla.....	8	9	11	17
Somerville, Mass.....	2	2	-	1*	Washington, D.C.....	10	6	12	12*
Springfield, Mass.....	2	5	1	7	Wilmington, Del.....	3	3	9	3
Waterbury, Conn.....	1	1	-	-					
Worcester, Mass.....	8	1	6	6	<b>EAST SOUTH CENTRAL:</b>				
<b>MIDDLE ATLANTIC:</b>					Birmingham, Ala.....	2	2	1	3
Albany, N.Y.....	-	1	-	-	Chattanooga, Tenn.....	9	4	2	5
Allentown, Pa.....	1	-	2	3	Knoxville, Tenn.....	1	-	-	1
Buffalo, N.Y.....	3	5	4	10	Louisville, Ky.....	11	7	11	13
Camden, N.J.....	3	2	2	2	Memphis, Tenn.....	1	3	7	5
Elizabeth, N.J.....	-	1	1	-	Mobile, Ala.....	-	-	-	2
Erie, Pa.....	2	1	3	5	Montgomery, Ala.....	2	2	3	3
Jersey City, N.J.....	5	6	10	3	Nashville, Tenn.....	5	1	5	7
Newark, N.J.....	9	5	4	7	<b>WEST SOUTH CENTRAL:</b>				
New York City, N.Y.....	67	57	65	77	Austin, Tex.....	5	-	7	5
Paterson, N.J.....	5	1	3	7	Baton Rouge, La.....	1	1	1	1
Philadelphia, Pa.....	9	25	14	15	Corpus Christi, Tex.....	1	1	1	3
Pittsburgh, Pa.....	7	2	10	3	Dallas, Tex.....	1	2	2	7
Reading, Pa.....	3	2	2	4	El Paso, Tex.....	2	4	3	3
Rochester, N.Y.....	11	7	14	11	Fort Worth, Tex.....	8	1	2	6
Schenectady, N.Y.....	-	-	1	2	Houston, Tex.....	7	3	6	3
Scranton, Pa.....	-	-	-	3	Little Rock, Ark.....	4	2	2	4
Syracuse, N.Y.....	-	2	3	1	New Orleans, La.....	5	7	8	9
Trenton, N.J.....	1	1	5	2	Oklahoma City, Okla.....	2	-	3	3
Utica, N.Y.....	6	5	3	2*	San Antonio, Tex.....	4	3	5	7
Yonkers, N.Y.....	-	2	1	3	Shreveport, La.....	5	12	7	6
<b>EAST NORTH CENTRAL:</b>					Tulsa, Okla.....	4	4	4	4
Akron, Ohio.....	1	-	-	-	<b>MOUNTAIN:</b>				
Canton, Ohio.....	5	1	2	2	Albuquerque, N. Mex.....	4	-	2	1
Chicago, Ill.....	32	35	36	44	Colorado Springs, Colo...	4	3	1	2
Cincinnati, Ohio.....	6	3	8	6	Denver, Colo.....	7	2	5	6
Cleveland, Ohio.....	3	6	2	4	Ogden, Utah.....	1	3	2	4
Columbus, Ohio.....	3	5	4	2	Phoenix, Ariz.....	7	12	3	3
Dayton, Ohio.....	1	3	2	4	Pueblo, Colo.....	2	-	2	4
Detroit, Mich.....	12	13	10	13	Salt Lake City, Utah.....	2	1	3	2
Evansville, Ind.....	-	4	2	2	Tucson, Ariz.....	-	-	-	7
Flint, Mich.....	1	2	-	2	<b>PACIFIC:</b>				
Fort Wayne, Ind.....	3	1	5	1	Berkeley, Calif.....	1	-	-	2
Gary, Ind.....	3	2	5	3	Fresno, Calif.....	1	2	2	-
Grand Rapids, Mich.....	2	3	8	5	Glendale, Calif.....	2	2	-	-*
Indianapolis, Ind.....	9	3	5	6	Honolulu, Hawaii.....	3	-	3	2
Madison, Wis.....	-	-	-	-	Long Beach, Calif.....	-	-	-	-
Milwaukee, Wis.....	2	1	-	3	Los Angeles, Calif.....	23	24	16	27
Peoria, Ill.....	-	2	-	-	Oakland, Calif.....	3	2	2	4
Rockford, Ill.....	3	4	-	3	Pasadena, Calif.....	-	-	1	-
South Bend, Ind.....	3	1	1	1	Portland, Oreg.....	8	1	5	3*
Toledo, Ohio.....	4	6	6	8	Sacramento, Calif.....	3	-	1	2
Youngstown, Ohio.....	1	1	4	-	San Diego, Calif.....	1	1	4	2
<b>WEST NORTH CENTRAL:</b>					San Francisco, Calif.....	11	3	4	5
Des Moines, Iowa.....	5	2	1	-	San Jose, Calif.....	2	1	7	2
Duluth, Minn.....	2	-	-	-	Seattle, Wash.....	4	7	4	7
Kansas City, Kans.....	2	3	1	3	Spokane, Wash.....	2	1	4	-
Kansas City, Mo.....	4	4	3	3	Tacoma, Wash.....	1	-	-	2
Lincoln, Nebr.....	4	1	-	2					
Minneapolis, Minn.....	2	1	1	3					
Omaha, Nebr.....	3	-	5	2					
St. Louis, Mo.....	9	9	7	7					
St. Paul, Minn.....	1	-	1	1					
Wichita, Kans.....	2	2	7	4					

<sup>o</sup>Current Week Mortality for 108 Selected Cities

4(A) Total Mortality, all ages.....	12,286
4(B) Pneumonia-Influenza Deaths, all ages.....	555
4(C) Total Deaths under 1 Year of Age.....	786
4(D) Total Deaths, Persons 65 years and over.....	6,857

\*Estimate - based on average percent of divisional total.  
Totals for previous weeks include reported corrections.

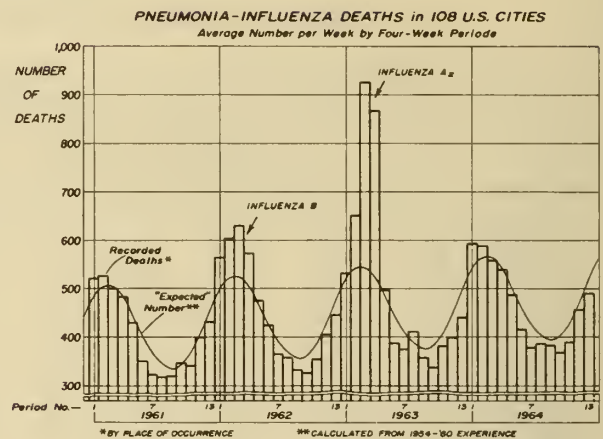
NOTE: All deaths by place of occurrence.



# SUMMARY OF PNEUMONIA AND INFLUENZA DEATHS

The weekly average number of pneumonia-influenza deaths for the four-week period ending December 12 was 489 as compared with an expected weekly average of 522.

	Week Ending				4 Week	Weekly
	11/21	11/28	12/5	12/12	Total	Average
Observed	489	425	485	555	1,954	489
Expected	504	516	528	539	2,087	522
Excess	-15	-91	-43	16	-133	-33



(See table, page 443)

## MENINGOCOCCAL MENINGITIS

(Continued from Page 439)

Substantial evidence, however, has accumulated that the Group B sulfonamide-resistant strains are at this time widely distributed throughout the civilian population. Ivler *et al*<sup>1</sup> have shown that 25 percent of strains isolated from Los Angeles area civilian cases of meningococcal meningitis since mid-1963 were resistant to 10 mg percent of sulfadiazine. In Figure 4 are shown the results of sulfonamide sensitivity testing of 210 isolates from blood or cerebrospinal fluid submitted to the Communicable Disease Center. Sixty percent of these strains came from States other than California, and all but a few of the strains were Group B. Thirty-seven percent of the strains required 1.0 mg percent or more of sulfadiazine for inhibition; the sensitive strains were inhibited by 0.1 mg percent or less.

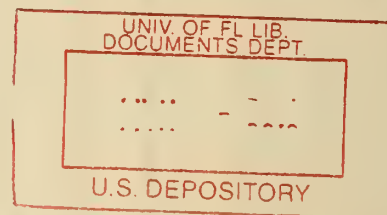
Resistance of meningococci to sulfonamides has not been accompanied by changes in resistance to penicillin or other antibiotics. It is important to emphasize that the presence of sulfonamide resistance in no way precludes successful treatment of clinical cases with penicillin G.

(Data submitted by Dr. Philip Condit, Chief, Bureau of Communicable Diseases, presented in "Epidemiological Notes" (October 30, 1964), California Department of Health; Colonel Adam Rapalski, Chief, Preventive Medicine Division, Department of the Army; and Laboratory Branch, CDC. Summary prepared in Investigations Section, Epidemiology Branch, CDC.)

## REFERENCE:

<sup>1</sup>Ivler, D., Leedom, J. M., Thrupp, L. D. Wehrle, P. F., and Portnoy, B.: Studies of naturally-occurring sulfadiazine-resistant meningococci. Presented at the Fourth Interscience Conference on Antimicrobial Agents and Chemotherapy. October 26-28, 1964, New York City.

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